

HKU launches the first-of-its-kind Water Footprint Calculator to raise citizens' water conservation awareness

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Being used to enjoying the convenience of obtaining fresh water with a simple turn of the tap, we may not be aware that Hong Kong is inherently a water-short city, and that we exert a huge demand on water resources. The "Jockey Club Water Initiative on Sustainability and Engagement" (JC-WISE), initiated by the Faculty of Social Sciences of the University of Hong Kong, with a donation of over HK\$14.7 million by The Hong Kong Jockey Club Charities Trust, launches the first-of-its-kind Water Footprint Calculator mobile app, focusing on food and daily dining habits. The Water Footprint Calculator is an innovative and engaging tool, integrated with evidence-based scientific data, to raise public awareness of the importance of heeding water conservation and to integrate the concept of water sustainability into our daily life, subsequently leading to a change in attitudes and behavior in favor of water conservation.

Ms. Imelda Chan, The Hong Kong Jockey Club's Head of Charities (Grant Making – Elderly, Rehabilitation, Medical, Environmental & Family) said the Club had long been committed to promoting environmental protection and sustainable development, working closely with various NGOs to enhance the public's environmental awareness. "In recent years, the Club has been encouraging its partners to inject innovative ideas into environmental programmes," she added. "We hope that this interactive and interesting Water Footprint Calculator will enable the public to understand their water footprint and encourage them to conserve every drop of water they can."

The first phase of the Water Footprint Calculator covers more than 90 local popular dishes, snacks, and drinks. Through the mobile app, the public can calculate the water footprint of their choices of daily meals, either by eatery type (such as Chinese restaurant or Hong Kong-style restaurant) or by food category (such as rice/noodles or dim sum), and understand the total amount of freshwater needed to produce the ingredients of those dishes. Water footprint is a useful indicator for the public to visualize the direct and indirect water usage pertaining to the production processes of food items that we consume, including the water consumed by crops and animals as well as those needed to dilute pollution in the production process.

Dr. Frederick Lee, Project Co-Investigator of JC-WISE and Associate Professor of the Department of Geography, HKU, explained that the JC-WISE Water Footprint Calculator, the first-of-its-kind based on common dishes in Hong Kong, was an important public education tool designed to localize the water footprint concept. With this information, the community can easily capture the idea of the total amount of freshwater needed to produce their food and realize that they can reduce their dietary water footprint through wiser food choices. "The water footprint of a typical meal, including food and drink, taken in a Hong Kong-style restaurant, can be higher than 1,600 litres, in which a stir-fried rice noodle with beef registers a water footprint of 1,238 litres. To illustrate the magnitude of the water footprint of a regular meal, the per capita per day domestic water consumption of Hong Kong people was 182 litres in 2015," Dr. Lee demonstrated with the app.

Dr. Lee also announced the results of a community-wide survey on public water attitudes in Hong Kong, Macau and Guangzhou. This 3-city survey, conducted by the JC-WISE, aims at gauging the general public's attitudes and preferences towards water usage and has collected data from around 500 respondents each in Hong Kong, Macau and Guangzhou. The survey results showed that there is a weak form of water conservation ethics among Hong Kong people. Less than half of the respondents in Hong Kong felt that implementing water conservation measures was urgently needed, and about only 40% of Hong Kong people believed that their fellow citizens had adopted good water conservation practices. A higher proportion of the respondents in Macau and Guangzhou believed their follow residents had embraced good water conservation practices. While a high proportion of respondents in Hong Kong supported the "user-pays principle", an equally large proportion of respondents did not accept the need to expend additional financial outlays for the sake of water conservation. A commonly found value-action gap is apparently also present in water conservation issues.

The survey results reveal that Hong Kong people are not fully informed of the potential risks posed to our freshwater supply, including the uncertainties associated with global climate change and increasing competition for freshwater resources in Pearl River Delta Region. In this connection, the JC-WISE Project is making use of an innovative approach, such as a Water Footprint Calculator, to enhance the public's understanding of the multiple values of freshwater resources and to raise their awareness of the possibilities of taking alternative actions to shift Hong Kong onto the pathway towards water sustainability, Dr. Lee illustrated.

Dr. C.N. Ng, Project Co-Investigator of JC-WISE and Associate Professor of the Department of Geography, HKU, introduced a web version of the JC-WISE Water Footprint Calculator (<u>www.jcwise.hk/wfc</u>), available to the public for easy access. In the second phase, more types of popular dishes will be added to the menu of the app. A water footprint databank of local food ingredients will also be developed to allow the public to experiment with their own creations of low water footprint recipes. The JC-WISE is also going to collaborate with restaurants and catering outlets in hotels to help promote the water footprint concept and the Water Footprint Calculator. Low water footprint cuisines will be recommended and served in the future to help achieve JC-WISE's overall objective.

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About "Jockey Club Water Initiative on Sustainability and Engagement"

Jockey Club Water Initiative on Sustainability and Engagement (JC-WISE) is a 3-year, HK\$14.7 million project funded by The Hong Kong Jockey Club Charities Trust and hosted by the Faculty of Social Sciences, HKU. It aims to raise the public's awareness, and appreciation, of the importance of attaining long-term water sustainability for Hong Kong.

Through multi-disciplinary, multi-institutional and cross-sectoral collaborations, JC-WISE aims at elevating the level of public awareness of the importance of water conservation and sustainability by:

- enhancing the understanding of the multiple values of water through re-connecting the public with our rivers; and
- recognising the impacts of consumption behaviour on local and distant freshwater resources through the Water Footprint concept, the first such innovative and evidence-based campaign in Hong Kong.